CLAIMS

1. Method for determining the susceptibility to antiviral drugs of HIV viruses in a biological sample, with said method comprising:

a) if need be, releasing, isolating or concentrating the polynucleic acids present in the sample;

b) if need be amplifying the relevant part of the protease gene of HIV with at least one suitable primer pair;

c) hybridizing the polynucleic acids of step a) or b) with at least one of the following probes:

probes specifically hybridizing to a target sequence comprising codon 30;

probes specifically hybridizing to a target sequence comprising codon 46 and/or 48;

probes specifically hybridizing to a target sequence comprising codon 50;

probes specifically hybridizing to a target sequence comprising codon 54;

probes specifically hybridizing to a target sequence comprising codon 82 and/or 84;

probes specifically hybridizing to a target sequence comprising codon 90;

or the complement of said probes;

further characterized in that said probes specifically hybridize to any of the target sequences presented in figure 1, or to the complement of said target sequences;

d) inferring from the result of step c) whether or not a mutation giving rise to drug resistance is present in any of said target sequences.

2. Method according to claim 1, further characterized in that said polynucleic acids of step a) or b) hybridize with at least two of the said probes, or to the complement of said probes.

3. Method according to claim 2, further characterized in that said probes are chosen from the following list: seq id no 7 to seq id no 477, seq id no 510 to seq id no 519 or the complement of said probes.

4. Method according to any of claims 1 to 3, further characterized in that said primer pair is chosen from the following primers: seq id no 3, seq id no 503, seq id no 504, seq id no 4, seq id no 506, seq id no 507, seq id no 508 and seq id no 509.

5. Method according to any of claims 1 to 3, further characterized in that:

step b) comprises amplifying a fragment of the protease gene with at least one 5'-primer specifically hybridizing to a target sequence located at nucleotide position 210 to 260 of the protease gene, in combination with at least one suitable 3'-primer, and
step c) comprises hybridizing the polynucleic acids of step a) or b) with at least one of the probes specifically hybridizing to a target sequence or its complement, comprising codon 90.

6. Method according to any of claims 1 to 3, further characterized in that:
step b) comprises amplifying a fragment of the protease gene with at least one 3'-primer specifically hybridizing to a target sequence located at nucleotide position 253 (codon 85) to position 300, in combination with at least one suitable 5'-primer, and
step c) comprises hybridizing the polynucleic acids of step a) or b) with at least one of the probes specifically hybridizing to a target sequence or its complement, comprising any of codons 30, 46, 48, 50, 52, 54, 82 and 84.

7. Method according to claim 5, further characterized in that the 5'-primer is seq id 5 and the 3'-primer is one primer or a combination of primers chosen from the following primers: seq id no 4, seq id no 506, seq id no 507, seq id no 508 and seq id no 509.

8. Method according to claim 6, further characterized in that the 5'-primer is one primer or a combination of primers chosen form the following primers: seq id no 3, seq id no 503, seq id no 504 and the 3'-primer is seq id no 6.

9. A probe as defined in any of claims 1 to 3, for use in a method for determining the susceptibility to antiviral drugs of HIV viruses in a biological sample.

10. A nucleic acid comprising a nucleotide sequence represented by any of the following SEQ ID numbers: SEQ ID NO 478, SEQ ID NO 479, SEQ ID NO 480, SEQ ID NO 481, SEQ ID NO 482, SEQ ID NO 483, SEQ ID NO 484, SEQ ID NO 485, SEQ ID NO 486, SEQ ID NO 487, SEQ ID NO 488, SEQ ID NO 489, SEQ ID NO 490, SEQ ID NO 491, SEQ ID NO 492, SEQ ID NO 493, SEQ ID NO 494, SEQ ID NO 495, SEQ ID NO 496, SEQ ID NO 497, SEQ ID NO 498, SEQ ID NO 499 and SEQ ID NO 500;
or a fragment thereof, wherein said fragment consists of at least two contiguous nucleotides and contains at least one polymorphic nucleotide.

11. A primer as defined in any of claims 4 to 8, for use in a method for determining the susceptibility to antiviral drugs of HIV viruses in a biological sample.

12. A diagnostic kit enabling a method for determining the susceptibility to antiviral drugs of HIV viruses in a biological sample, with said kit comprising:

a) when appropriate, a means for releasing, isolating or concentrating the polynucleic acids present in said sample;

b) when appropriate, at least one of the primers of any of claims 4 to 6;

c) at least one of the probes of any of claims 1 to 3, possibly fixed to a solid support;

d) a hybridization buffer, or components necessary for producing said buffer;

e) a wash solution, or components necessary for producing said solution;

f) when appropriate, a means for detecting the hybrids resulting from the preceding hybridization;

h) when appropriate, a means for attaching said probe to a solid support.